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Method for channel allocation in an ad-hoc radio communication system

ABSTRACT

The invention concerns a method for channel allocation in an ad-hoc radio communication system comprising devices gathered in several piconets. A piconet coordinator (PNC) is defined for each piconet. A Code Division Multiple Access (CDMA) scheme is implemented. The set of available codes is split into pre-defined disjoined subsets of codes (C_i) known by each device.

For each new device added in the system, the method includes the following steps :

- the new device scans its radio environment looking for at least one used subset of codes (C_i) which is associated to a piconet,
- depending on the or each found used subset of codes (C_i) :
  . the new device becomes a piconet coordinator (PNC), or
  . the new device joins an existing piconet among a set of available piconets.

Figure 1.